

REMARKS

INTRODUCTION

In accordance with the foregoing, no new matter is being presented, and approval and entry are respectfully requested. Claims 1-64 are pending and under consideration. Reconsideration is respectfully requested.

REJECTION UNDER 35 U.S.C. §103(a)

In the Office Action, at page 2, claims 1-3, 5-9, 11-20 and 22-64 were rejected under 35 U.S.C. §103(a) in view of Jiang et al. (U.S. Patent No. 5,966,399) and Webb (U.S. Patent No. 6,051,848). The rejection is traversed and reconsideration is requested.

According to the Office Action, at page 3, item 1, "it would have been obvious to one of ordinary skill in the art . . . to modify the lens structure of Jiang by forming a single lens having an arch extending through the entire window as taught by Webb in order to reduce the processing step of forming a single lens by etching." Applicants respectively disagree.

Briefly, Jiang describes a diffractive planar lens element 44 etched into the uppermost surface of the second stack 22 and is capable of focusing and/or collimating laser emission 12 without the necessity of an external lens or lens array. *See Jiang at column 6, lines 46-63.* Indeed, according to Jiang, external lenses or lens arrays are often quite bulky and not lent to small overall package sizes. Using the VCSEL substrate as a lens to which etching methods are applied overcomes the problem of these bulky external lenses and lens arrays. *See id. at column 1, lines 50-66.*

On the other hand, Webb teaches a method of forming a lens structure that results in nothing less than a bulky external lens. *See Webb, FIGS. 1-6.* According to Webb, the lens pattern 22 is formed by encapsulation of a die 10 (e.g. a VCSEL) within a mold material 20. Before the mold material 20 hardens, a portion of the mold material 20 is shaped to form the lens pattern 22. *See id. at column 2, lines 37-49.*

As is apparent from the illustrations of the Jiang and Webb devices, there are several very significant differences between the lens element 44 of Jiang and the lens pattern 22 of Webb. Among these are that while the lens element 44 of Jiang fits entirely within the

uppermost surface of the second stack 22, the lens pattern 22 and the mold material of Webb are an order of size larger. In other words, the lens pattern of Webb is not only larger than what would be a substrate layer in the die 10 (in which the lens element 44 of Jiang would fit), but is indeed so large that the entire die 10 is dwarfed in size. See *Webb at FIGS. 1-6* (noting the relative size of the mold material 20 and the die 10). Moreover, due to the great size of the lens pattern 22, Webb necessarily teaches an external lens or lens array in direct contravention of the teachings of Jiang.

Therefore, applicants respectfully assert that, since the teachings of Jiang and Webb actually teach away from combining the references with each other, the Examiner's suggestion to combine the references along with the admitted prior art was in error. Thus, the rejection is overcome and claims 1-3, 5-9, 11-20 and 22-64 are believed to be allowable.

In the Office Action, at page 2, claims 4, 10, and 21 were rejected under 35 U.S.C. §103(a) in view of Jiang et al. (U.S. Patent No. 5,966,399), Webb (U.S. Patent No. 6,051,848), and Peake (U.S. Patent No. 6,122,109). The rejection is traversed and reconsideration is requested.

As noted above, applicants disagree with the suggestion that the references to Jiang and Webb can or should be combined so as to, along with the admitted prior art, render the present claims obvious. Peake, which is directed to providing a method for producing microlenses that can be directly integrated into the fabrication process of microoptical systems and to providing an epitaxial growth method that is capable of producing highly nonplanar features that are free from macroscopic faceting, does not make the suggestion to combine the disparate teachings of Jiang and Webb any more palatable than discussed above.

Therefore, claims 1 and 17, which are allowable as noted above, remain non-obvious even with the addition of Peake. Thus, claims 4, 10, and 21, which depend from claims 1 and 17, respectively, are also allowable for at least the reasons as set forth above.

CONCLUSION

In accordance with the foregoing, it is respectfully submitted that all outstanding objections and rejections have been overcome and/or rendered moot. And further, that all pending claims patentably distinguish over the prior art. Thus, there being no further outstanding objections or rejections, the application is submitted as being in condition for allowance which action is earnestly solicited.


If the Examiner has any remaining issues to be addressed, it is believed that prosecution can be expedited by the Examiner contacting the undersigned attorney for a telephone interview to discuss resolution of such issues.

If there are any underpayments or overpayments of fees associated with the filing of this Amendment, please charge and/or credit the same to our Deposit Account No. 19-3935.

Respectfully submitted,

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